UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 18 2004

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable John D. Dingell
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515-6115

Dear Congressman Dingell:

Thank you for your letters of February 5 and March 12, 2004, to Administrator Leavitt seeking comprehensive information on perchlorate, TNT, RDX, HMX and white phosphorous contamination at Department of Defense facilities. We have provided the remaining data you requested with complete responses for 3b, 4, 7b, and 8b of your February 5th inquiry.

EPA welcomes the opportunity to assist you with your inquiry. We previously responded to questions 1 and 2 on February 6, 2004 and questions 3a, 5, 6, 7a, 8a and 9 on April 20, 2004.

If you or have further questions or concerns, please contact me or your staff may contact Holly Smithson, in EPA's Office of Congressional and Intergovernmental Relations, at (202) 564-1609.

Sincerely,

Charles L. Ingebretson
Associate Administrator

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 18 2004

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable Hilda L. Solis
Ranking Member
Subcommittee on Environment
and Hazardous Materials
U.S. House of Representatives
Washington, D.C. 20515-6115

Dear Congresswoman Solis:

Thank you for your letters of February 5 and March 12, 2004, to Administrator Leavitt seeking comprehensive information on perchlorate, TNT, RDX, HMX and white phosphorous contamination at Department of Defense facilities. We have provided the remaining data you requested with complete responses for 3b, 4, 7b, and 8b of your February 5th inquiry.

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Associate Administrator

Enclosures

The table below represents the historical high level of detected contaminants found at a facility, i.e., the highest concentration ever detected at at least one site on the facility. The data was taken for a number of different purposes spanning a number of years. Concentrations at any given response site for any given constituent may have ranged from non-detect up to the levels shown. While the chart displays the highest levels detected at a site on a facility, the levels displayed may not represent current levels in the environment or the current human health or environmental risks at the facility. Also, at some of the sites, it was determined that no response action was required based on a site-specific risk assessment.

3b. Please identify each DOD facility where EPA has knowledge that, or has reason to believe that, a constituent of military munitions, including perchlorate, TNT, RDX, HMX, or White Phosphorus has been detected or discovered? For each such facility identify the constituent that has been detected, the levels of contamination discovered, the date the constituent was detected, the media where it was detected, the remedial action, if any, that has been taken and whether the facility is listed on the Superfund NPL. Further, please indicate whether the constituent of military munitions has been detected in the groundwater under an operational range. In addition, indicate whether private or public drinking water wells have been closed, temporarily or otherwise, by contamination from a constituent of military munitions and if so provide the location of the well.

EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
1	Otis ANGB (Army Camp Edwards)	F	HMX - 1400 ppm	2000	soil	No remedy	Yes	No
1	Otis ANGB (Army Camp Edwards)	F	HMX - 93 ppb	1998	groundwater	No remedy	Yes	No
1	Otis ANGB (Army Camp Edwards)	F	RDX - 14000 ppm	1999	soil	Removal on-going	Yes	No
1	Otis ANGB (Army Camp Edwards)	F	RDX - 370 ppb	1999	groundwater	Remedy in design	Yes	No
1	Otis ANGB (Army Camp Edwards)	F	TNT - 57 ppm	2002	soil	No remedy	Yes	No
1	Otis ANGB (Army Camp Edwards)	F	TNT - 16 ppb	1998	groundwater	No remedy	Yes	No
3	Aberdeen Proving Grounds/2 NPL sites	Y	RDX - 16,000 ppb (sed) RDX - 1,730,000 ppb (soil) RDX 42 ppb (sw) RDX 470 ppb (gw)	10/03 12/1998 03/2002 11/2001	Sediment Soil SW GW	n/a	n/a	n/a
3	Aberdeen Proving Grounds/2 NPL sites	Y	HMX - 142,000 ppb (sed) HMX - 188,000 ppb (soil) HMX 80 ppb (gw)	12/98 11/02	Sediment Soil GW	n/a	n/a	n/a

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3	Aberdeen Proving Grounds/2 NPL sites	Y	TNT - 69,000 ppb (sed) TNT - 3,260,000 ppb (soil) TNT - 0.6 ppb (sw) TNT - 290 ppb (gw)	6/94 12/1995 10/1995 11/2001	Sediment Soil SW GW	n/a	n/a	n/a
3	Aberdeen Proving Grounds/2 NPL sites	Y	WP present at high levels (soil & sed)	-	Sediment Soil	n/a	n/a	n/a
3	Allegany Ballistics Lab	Y	HMX 340 ppb (J value) (soil) HMX 41 ppb (gw)	2/21/01 9/12/03	Soil GW	Some Removals; investigations ongoing.	No	No
3	Allegany Ballistics Lab	Y	Perchlorate 120 ppb (soil) RDX 150 ppb (gw)	2/21/01 3/4/86	Soil GW	Some Removals; investigations ongoing.	No	No
3	Former Nansemond Ordnance Depot, Va	Y	TNT – 125 ppb (gw) TNT – 28,600,000 ppb (soil)	6/1992 11/1991	GW Soil	Removal, no Remedy	No	No
3	Former Nansemond Ordnance Depot, Va	Y	RDX – 1.63 ppb (gw)	6/1992	GW	Removal, no Remedy	No	No
3	Fort Meade	Y	RDX - 120 ppb	1994	GW	Removal, no remedy selected	No	No
3	Fort Meade	Y	TNT - 96 ppb	1994	GW	Removal, no remedy	No	No
3	Letterkenny Army Depot/2 NPL sites	Y	TNT – GW & Soil	n/a	GW Soil	n/a	Yes	No
3	Letterkenny Army Depot/2 NPL sites	Y	RDX – GW, Soil & SW	n/a	GW SW Soil	n/a	Yes	No
3	Letterkenny Army Depot/2 NPL sites	Y	HMX – Soil & SW	n/a	Soil SW	n/a	Yes	No
3	NDW-Indian Head	Y	HMX – 268,364J ppb (soil)	05/2001	Soil	No remedy	No	No

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3	NDW-Indian Head	Y	TNT – 4 ppb (gw)	07/2000	GW	No remedy	No	No
3	Naval Supply Depot-Cheatham Annex	Y	TNT – 620,000 ppb (soil) **(unable to verify at this time)**	1/1999	Soil	No remedy, (Former Penniman Plant)	No	No
3	Naval Weapons Station Yorktown	Y	TNT – 40,000,000 ppb **(unable to verify at this time)**	07/1993	Soil	Bioremediation	No	No
3	Naval Weapons Station Yorktown	Y	HMX – 3,200,000 ppb	07/1993	Soil	Bioremediation	No	No
3	Naval Weapons Station Yorktown	Y	RDX – 14,000,000 ppb	07/1993	Soil	Bioremediation	No	No
3	NSWC Dahlgren	Y	RDX - 7060 ppb (soil) RDX - 127.0 ppb (gw) RDX - 218 ppb (sed) RDX - 30.0 ppb (sw)	12/1994 02/1995 12/1994 12/1994	Soil GW Sediment SW	n/a	Yes	No
3	NSWC Dahlgren	Y	HMX - 3950 ppb (soil) HMX - 40.5 ppb (gw)	12/1994 01/1997	Soil GW	n/a	Yes	No
3	NSWC Dahlgren	Y	TNT - 360 ppb (soil)	12/1994	Soil	n/a	Yes	No
3	NSWC Dahlgren	Y	2,4,6 TNT - 2.6 ppb (gw)	1/1997	GW	n/a	Yes	No
3	West Virginia Ordnance Works	Y	TNT - 1100 ppb (gw) TNT - 2,200,000 ppb (soil)	06/1999 12/1999	GW Soil	Capping, flashing, composting, & P/T.	No	No
3	Former Virginia Ordnance Works	N	TNT – 7,760,000 ppb (soil)	8/2001	Soil	No remedy	No	No
3	New River Ammunition Storage Depot	N	TNT (soil)	N/A	Soil	Soil removal	No	No
3	NSWC-White Oak	N	RDX - 2,670,000 ppb (soil) RDX - 2,300 ppb (gw) RDX - 1.8 ppb (sed) RDX - 4.9 ppb (sw)	12/1985 05/1997 01/1991 02/1998	Soil GW Sediment SW	Removal	No	No

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EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
3	NSWC-White Oak	N	HMX - 860,000 ppb (soil) HMX - 470 ppb (gw) HMX - 27,000 ppb (sed) HMX - 2.9 ppb (sw)	11/1996 01/1991 03/1998 02/1998	Soil GW Sed SW	Removal	No	No
3	NSWC-White Oak	N	TNT - 2,020,000 ppb (soil) TNT - 1,650 ppb (gw)	12/1985 02/1986	Soil GW	Removal	No	No
3	Radford Army Ammunition Plant	N	TNT – 7.4 ppb (gw) TNT – 6,530,000 ppb (soil)	05/1999 01/1995	GW Soil	Removal; No remedy selected, Karst	No	No
3	Radford Army Ammunition Plant	N	HMX – 15.6 ppb (gw) HMX – 123,000 ppb (soil)	05/1999 12/1997	GW Soil	Removal; No remedy selected, Karst	No	No
3	Radford Army Ammunition Plant	N	RDX – 16,000 ppb (soil)	05/1999	Soil	Removal; No remedy selected, Karst	No	No
4	USA Defense Depot Memphis	Y	TNT – 49.5 ppm (soil)	08/1998	Soil	No remedy	No	No
4	USA Defense Depot Memphis	Y	RDX – 194.7 ppm (soil)	08/1998	Soil	No remedy	No	No
4	USA Defense Depot Memphis	Y	HMX – 24.2 ppm (soil)	08/1998	Soil	No remedy	No	No
4	Fort Campbell	N	RDX – 35.7 ppm (soil) RDX – 76.5 ppb (gw) RDX – 0.516 ppb (sw)	11/1995 06/1999 09/1998	Soil GW SW	No remedy	No	No
4	Fort Campbell	N	HMX – 87.2 ppm (soil) HMX – 24.5 ppb (gw) HMX – 0.28 ppb (sw)	11/1995 06/1999 09/1998	Soil GW SW	No remedy	No	No
4	Alabama Army Ammunition Plant (AAAP)	Y	TNT – 7900 ppm (soil) TNT – 26000 ppb (gw) TNT – 0.733 ppb (sw)	05/1978	Soil GW SW	October 1994: excavation of 400,000 cubic yards of soil; on-site	No	No

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EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
						thermal treatment followed by solidification and landfilling. Remediated to support industrial reuse.		
4	Aniston Army Depot	Y	TNT – 8.8 ppm (soil) TNT – 3.6 ppm (gw)	10/1997	Soil GW	No remedy	No	No
4	Aniston Army Depot	Y	RDX – 25.0 ppm (soil) RDX – 23.4 ppb (gw)	10/1997	Soil GW	No remedy	No	No
4	Aniston Army Depot	Y	HMX – 24.0 ppm (soil) HMX – 16.3 ppb (gw)	10/1997	Soil GW	No remedy	No	No
4	Naval Air Station Cecil Field	Y	HMX – 3001 ppm (soil)	07/1995	Soil	No remedy	No	No
4	Patrick Air Force Base/ Cape Canaveral	N	RDX – 0.28 – 17.2 ppb	1998-2003	GW	No remedy – RCRA permitted active EOD OB/OD range	Yes	No – No drinking water wells
4	Fort McClellan Army Garrison	N	TNT – 0.95 ppm (soil) TNT – 3.15 ppb (gw) TNT – 2.2 ppb (sw)	07/2002 06/1995 06/1994	Soil GW SW	No remedy	No	No
4	Fort McClellan Army Garrison	N	RDX – 2.01 ppm (soil) RDX – 4.5 ppb (gw) RDX – 2.9 ppb (sw)	05/1994 09/1994 02/2002	Soil GW SW	No remedy	No	No
4	Fort McClellan Army Garrison	N	HMX – 5.8 ppm (soil) HMX – 1.2 ppb (gw)	05/1994 05/2001	Soil GW	No remedy	No	No
4	Milan Army Ammunition Plant	Y	TNT – 54619 ppm (soil) TNT – 15800 ppb (gw)	11/1978 11/1978	Soil GW	Groundwater Extraction System	No	Yes

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			TNT – 53.3 ppb (sw)	1977	SW	Soil removal & composting		
4	Milan Army Ammunition Plant	Y	RDX – 10460 ppm (soil) RDX – 17600 ppb (gw) RDX – 45 ppb	11/1978 11/1978 1977	Soil GW SW	Groundwater Extraction System Soil removal & composting	No	Yes
4	Milan Army Ammunition Plant	Y	HMX – 3.39 ppm (soil) HMX – 2600 ppb (gw)	11/1978	Soil gw	Groundwater Extraction System Soil removal & composting	No	Yes
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	Thiodiglycol – 3.1 ppm (soil) Thiodiglycol – 42 ppb (gw) Thiodiglycol – 0.3 ppb (sw)	09/1996 11/1996 03/1999	Soil GW SW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	1,3-Dinitrobenzene - .038 ppm (soil) 1,3-Dinitrobenzene – 0.861 ppb (gw) 1,3-Dinitrobenzene – 0.2 ppb (sw)	0/1996 01/1991 09/1993	Soil GW SW	No remedy	No	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	1,3,5-Trinitrobenzene – 1.16 ppm (soil) 1,3,5-Trinitrobenzene – 46.3 ppb (gw) 1,3,5-Trinitrobenzene – 0.33	07/1996 01/1991 04/2001	Soil GW SW Sediment	No remedy	Yes	No

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			ppb (sw) 1,3,5-Trinitrobenzene – 0.055 ppm (sed)	04/1998				
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	2,4,6-Trinitrotoluene – 8.57 ppm (soil) 2,4,6-Trinitrotoluene – 1.7 ppb (gw) 2,4,6-Trinitrotoluene – 0.46 ppb (sw) 2,4,6-Trinitrotoluene – 0.085 ppm (sed)	07/1990 09/1993 04/2001 05/1999	Soil GW SW Sediment	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	2,4-Dinitrotoluene – 5.17 ppm (soil) 2,4-Dinitrotoluene – 37 ppb (gw) 2,4-Dinitrotoluene – 0.22 ppb (sw)	05/1994 10/1987 06/1999	Soil GW SW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	2,6-Dinitrotoluene – 83 ppm (soil) 2,6-Dinitrotoluene – 1.8 ppb (gw) 2,6-Dinitrotoluene – 0.27 ppb (sw)	05/1994 03/1999 03/2002	Soil GW SW Sediment	No remedy	Yes	No

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			2,6-Dinitrotoluene – 0.746 ppm (sed)	01/1991				
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	2-Nitrotoluene – 0.25 ppm (soil) 2-Nitrotoluene – 0.15 ppb (gw) 2-Nitrotoluene – 0.33 ppb (sw)	05/1999 09/1999 06/1999	Soil GW SW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	3-Nitrotoluene – 0.38 ppm (soil) 3-Nitrotoluene – 0.16 ppb (gw) 3-Nitrotoluene – 0.19 ppb (sw)	07/1997 04/2001 06/1999	Soil GW SW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	4-Amino-2,6-dinitrotoluene – 1.9 mg.kg (soil) 4-Amino-2,6-dinitrotoluene – 2.2 ppb (gw) 4-Amino-2,6-dinitrotoluene – 0.032 ppm (sed)	09/1998 04/1998 05/1999	Soil GW Sediment	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	HMX – 6800 ppm (soil) HMX – 110 ppb (gw) HMX – 8.1 ppb (sw) HMX – 5.05 ppm (sed)	09/1993 08/1996 08/1996 01/1991	Soil GW SW Sediment	No remedy	Yes	No

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4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	Nitrobenzene – 1.8 ppm (soil) Nitrobenzene – 0.72 ppb (gw) Nitrobenzene – 0.18 ppb (sw) Nitrobenzene – 0.13 ppm (sed)	09/1996 03/1999 06/1999 09/1993	Soil GW SW Sediment	No remedy	No	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	Nitrocellulose – 12.8 ppm (soil) Nitrocellulose – 2.4 ppm (sed)	09/1998 06/2000	Soil Sed	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	Nitroglyerin – 20 ppm (soil) Nitroglyerin – 4.3 ppb (gw) Nitroglyerin – 0.76 ppb (sw)	09/1996 08/1999 03/2002	Soil GW SW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	Nitroguanidine - .015 ppm (soil) Nitroguanidine – 4.4 ppb (gw)	05/1999 06/1999	Soil GW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	PETN – 73 ppm (soil) PETN – 5.98 ppm (sed)	10/1996 01/1991	Soil Sed	No remedy	Yes	No
4	Redstone Army	Y	RDX – 5400 ppm (soil)	09/1993	Soil	No remedy	Yes	No

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	Arsenal (including NASA Marshall Space Flight Center)		RDX – 310 ppb (gw) RDX – 1000 ppb (sw) RDX – 0.05 ppm (sed)	01/1991 09/1993 09/1993	GW SW Sed			
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	Tetryl – 3200 ppm (soil) Tetryl – 0.4 ppb (gw) Tetryl – 0.65 ppb (sw)	07/1997 08/1997 04/2001	Soil GW SW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	p-Nitrotoluene – 1.5 ppm (soil) p-Nitrotoluene – 0.26 ppb (sw)	07/1997 03/2002	Soil SW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	1,4-Dithiane – 83 ppb (gw)	01/1991	GW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	1,4-Oxathiane – 37 ppb (gw) 1,4-Oxathiane – 1.8 ppb (sw)	08/1996 03/2002	GW SW	No remedy	Yes	No
4	Redstone Army Arsenal (including NASA Marshall Space Flight Center)	Y	Mustard gas – 0.4 ppb (gw)	11/1996	GW	No remedy	No	No
5	Jefferson Proving Ground	N	Perchlorate – 0.25 to 0.97 ppm (soil) Perchlorate - < 0.337 to 3.4 g/L	09/2002	Soil GW	No Remedy	Yes	No

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EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
			(gw)					
5	Jefferson Proving Ground	N	NB - < 0.030 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	2-NT -< 0.090 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	3-NT - < 0.090 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	4-NT - < 0.090 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	NG – < 0.090 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	4-A-2,6-DNT - < 0.01g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	1,3-DNB - < 0.090 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	2,4-DNT - < 0.010 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	2,6-DNT - < 0.02 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	2-A-4, 6-DNT - < 0.10 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	RDX - < 0.10 g/L (gw) RDX - < 0.011 to 0.098 ppm (soil)	09/2002	Soil GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	1,3,5-TNB - < 0.30 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	Tetryl - < 0.50 g/L (gw)	09/2002	GW	No Remedy	Yes	No

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5	Jefferson Proving Ground	N	2,4,6-TNT - < 0.030 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	HMX - <0.30 g/L (gw)	09/2002	GW	No Remedy	Yes	No
5	Jefferson Proving Ground	N	2,4-DNT – 0.58 ppm (soil)	09/2002	Soil	No Remedy	Yes	No
5	Jefferson Proving Ground	N	2,6-DNT – 0.046 ppm (soil)	09/2002	Soil	No Remedy	Yes	No
5	Wright-Patterson AFB	F	Perchlorate – 17.2 ppb (DW) (Suspected laboratory error) Resampled perchlorate – non-detect	02/2002 07/2002	DW	No Remedy	No	No
5	Sangamo Electric Dump/Crab Orchard National Wildlife Refuge NPL Site	Y	Perchlorate – 1,200 ppb (gw)	Spring of 2000	GW	No Remedy	No	No
5	Sangamo Electric Dump/Crab Orchard National Wildlife Refuge NPL Site	Y	TNT - 1,500 ppb (soil) TNT - 1,800 ppb (sediment) TNT - 22 ppb (gw)	Spring of 2000	Soil Sediment GW	No Remedy	No	No
5	Sangamo Electric Dump/Crab Orchard National Wildlife Refuge NPL Site	Y	HMX – 39,000 ppb (soil) HMX – 10,000 ppb (sediment) HMX – 7.9 ppb (surface water) HMX – 34 ppb (gw)	Spring of 2000	Soil Sediment Surface Water GW	No Remedy	No	No
5	Sangamo Electric Dump/Crab Orchard National Wildlife Refuge NPL Site	Y	RDX – 76,000 ppb (soil) RDX – 2,400 ppb (sediment) RDX – 25 ppb (surface water) RDX – 890 ppb (gw)	Spring of 2000	Soil Sediment Surface Water GW	No Remedy	No	No

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5	Sangamo Electric Dump/Crab Orchard National Wildlife Refuge NPL Site	Y	TNT – 223,000 ppm (soil)	Remedial Investigation 1991 - 1993	Soil	Excavation and off-site disposal (completed in 2001)	No	No
5	Sangamo Electric Dump/Crab Orchard National Wildlife Refuge NPL Site	Y	UXO Scrap – 25,894 pounds	Removal Action 1999- 2000	Soil	Removal Action to remove UXO (completed in 2000)	No	No
6	Ft. Wingate ***	N	Perchlorate – 2860 ppb (gw) Perchlorate – 2790 ppb (soil)	07/2000 09/2000	GW Soil	In situ Enhanced Bioremediation	Yes	No
6	Ft. Wingate	N	HMX – 22.8 ppb (gw) HMX – 180000 ppb (soil)	02/1997 12/1992	GW Soil	No Remedy	n/a	No
6	Ft Wingate	N	RDX – 940 ppb (gw) RDX – 2,390,000 (soil)	09/1996 12/1992	GW Soil	No Remedy	n/a	No
6	Ft Wingate	N	TNT – 1.27 (gw) TNT - 519,000 (soil	12/1992 12/1992	GW Soil	No Remedy	n/a	No
6	Ft Wingate	N	2,4-DN,T - 2.19 ppb (gw) 2,4-DN,T – 22,000 ppb (soil)	09/1997 12/1992	GW Soil	No Remedy	n/a	No
6	Ft Wingate	N	1,3,5-TNB – 381 (gw) 1,3,5-TNB – 110,000 (soil)	09/1996 12/1992	GW Soil	No Remedy	n/a	No
6	Ft Wingate	N	Nitrate/Nitrite (235,000) Nitrate/Nitrite (800,000)	12/1992 12/1992	GW Soil	No Remedy	n/a	No
6	Cannon AFB	N	Perchlorate - <5 ppb(GW and DW)	04/1999 12/2000	DW GW	None	No	No
6	Melrose Bombing Range	N	Perchlorate –11 ppb	04/1999	DW	None	Yes	No
6	McAlester AAP	N	RDX – 3 ppb (gw)	2003	GW	None	No	No
6	Louisiana AAP	Y	HMX up to 4,200 ppb (gw)	08/1987	GW	MNA for GW	No	No

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EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
					Soil	Excavation and incineration of soils greater 100 ppm, backfilling, capping, and grading,		
6	Louisiana AAP	Y	RDX up to 14,120 ppb (gw) RDX up to 602 ppm (soil)	08/1987	GW Soil	MNA for GW Excavation and incineration of soils greater 100 ppm, backfilling, capping, and grading,	No	No
6	Louisiana AAP	Y	TNB up to 7,720 ppb (gw)	08/1987	GW	MNA for GW Excavation and incineration of soils greater 100 ppm, backfilling, capping, and grading,	No	No
6	Louisiana AAP	Y	TNT up to 18.400 ppb (gw) TNT up to 1033 ppm (soil)	08/1987	GW Soil	MNA for GW Excavation and incineration of soils greater 100 ppm, backfilling, capping, and grading,	No	No
6	Longhorn AAP	Y	Perchlorate Site 04 -36.90 ppb (sw) - 163,000 ppb (soil)	02/1998	SW Soil	Pilot study focusing on using soil amendments to reduce perchlorate has been completed.	No	No

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EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
						Feasibility study underway.		
6	Longhorn AAP	Y	Perchlorate Site 12 Landfill – 56 ppb (gw)	02/1998	GW	Landfill has been capped. GW monitoring is underway. Final ROD Targeted for this year.	No	No
6	Longhorn AAP	Y	Perchlorate Site 16 (Old Landfill)-2430 ppb (gw) Harrison Bayou - 99 ppb(sw)	02/1998	GW	Landfill capped. An interim GW extraction system is pumping contaminated gw to the site gw treatment plant. Fieldpilot study using amendments to treated contaminated groundwater (including perchlorate) in-situ is underway.	No	No
6	Longhorn AAP	Y	Perchlorate Site 17 (Burning Ground No 2/Flshing Area) – 320,000 ppb (GW) 7.110 ppb (soil)	02/1998	GW Soil	Feasibility study underway.	No	No

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6	Longhorn AAP	Y	Perchlorate Site 18/24 (Burning Ground No 3/Unlined Evap pond) – 203,000 ppb (gw)	02/1998	GW	Extracted and treated at the facility's GW Treatment Plant	No	No
6	Longhorn AAP	Y	Perchlorate Site 29 (TNT Prodtn Area) 88,000 ppb (gw) 2,420 ppb (soil)	02/1998	GW Soil	Feasibility study underway	No	No
6	Longhorn AAP	Y	Perchlorate Site 46 (Plant 2 area) 30 ppb (gw)	02/1998	GW	No remedy	No	No
6	Longhorn AAP	Y	Perchlorate Site 47 (Plant 3 area) – 82,900 ppb (gw) 1,450 ppb (soil) 11,000 ppb (surface water runoff)	02/1998	GW Soil SW runoff	Excess landfill cover material used to cover soils near building 25C in an efforts to reduce perchlorate surface water runoff. Feasibility study is underway.	No	No
6	Longhorn AAP	Y	Perchlorate Site 47A (Bldg 42-H, North Area) – 836 ppb(gw) 25.5 ppb (soil)	02/1998	GW Soil	No remedy	No	No
6	Longhorn AAP	Y	Perchlorate Site 47B (Bldg 25-C, 29-D, and 25-D, South Area) 72,100 ppb (gw)	02/1998	GW	No remedy	No	No

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6	Longhorn AAP	Y	Perchlorate Site 50 (former sump wastewater tank) 63,000 ppb 45,600 ppb (soil)	02/1998	GW Soil	No remedy	No	No
6	Longhorn AAP	Y	RDX - 1.44 ppb (gw)	03/1996	GW	Landfill has been capped and contaminated groundwater from this site is currently being extracted and pumped to the facility's GW Treatment Plant	No	No
6	Longhorn AAP	Y	HMX - 2.9 ppb (gw)	03/1996	GW	Landfill has been capped and contaminated groundwater from this site is currently being extracted and pumped to the facility's GW Treatment Plant	No	No
6	Longhorn AAP	Y	TNT - 3900 – 57,000,000 ppb (soil) TNT – 1.56 ppb (gw)	07/1998 03/1996	Soil GW	Landfill has been capped and contaminated groundwater from this site is currently being extracted and	No	No

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						pumped to the facility's GW Treatment Plant		
6	White Sands Missile Range (WSMR)	N	RDX -24 ppb (gw)	08/1991	GW	OB/OD unit closed in Dec 2000 at direction of NMED after a determination was made that explosives residue in the GW comprised an unacceptable level of contamination for a potable water aquifer. Post closure Care Permit Application submitted to NMED in Oct 2003.	n/a	
6	WSMR	N	Perchlorate	04/1999	GW	Supply well HTA-3, once provided water only to those buildings in the immediate area of the OB/OD unit fitted with a reverse osmosis filter. The filter was installed to remove the naturally		HTA-3 no longer is used to supply drinking water to the area due to the presence of contaminants related to the OB/OD.

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EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
						occurring radionuclides from the water . TO has been shown to be effective in removing perchlorate from water but has not been employed on a wide scale due to uncertainties regarding cost effectiveness.		
	WSMR	N	Nitrate 29ppm	1996				
6	Kirtland AFB (Contaminated area is on Kirtland AFB property but belongs to Sandia National Labs) ****	N	Perchlorate - 50,500 ppb (soil)	April 2001	Soil (Chestnut Range – SNL Test site)	No remedy	Yes	No
6	Kirtland AFB (Contaminated area is on Kirtland AFB property but belongs to Sandia National Labs)	N	Perchlorate - 12.6 ppb (dw)	Feb 2004	Water (KAFB Well #17 located at heliport #1, not used for drinking water)	No remedy	No	No
6	Kirtland AFB ****	N	North HE Pit HMX (10 ppm)	1994-1998	Soil	No cleanup decisions has been made still in	Yes	No

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			South HE Pit HMX (150 ppm)	1994-1998	Soil	quarterly sampling (7 of 8 quarters)		
6	Kirtland AFB ****	N	North HE Pit RDX (3 ppm) South HE Pit RDX (12 ppm)	1994-1998 1994-1998	Soil Soil	No cleanup decisions has been made still in quarterly sampling (7 of 8 quarters)	Yes	No
6	Kirtland AFB ****	N	North HE Pit 2,4,6-TNT (4.5 ppm) South HE Pit 2,4,6-TNT (102 ppm)	1994-1998 1994-1998	Soil Soil	No cleanup decisions has been made still in quarterly sampling (7 of 8 quarters)	Yes	No
6	Kirtland AFB ****	N	South HE Pit 1,3,5-TNB (508 ppm) 2,4,6	1994-1998	Soil	No remedy	Yes	No
6	Altus AFB	N	Skeet and trap range no longer in use	n/a	n/a	Investigation planned		No
6	Ft Hood	N	OD site, explosives in soil	n/a	n/a	n/a	Yes	No
6	NWIRP McGregor	N	Perchlorate – 91,000 ppb (soil)	05/1998	Surface soils	Fluidized bed reactor is in place.	No	No
6	NWIRP McGregor	N	RDX (4700 ppb) (soil) RDX (810 ppb) (gw)	03/1999 04/1999	Soil GW	Capped – removal Capped - removal	No	No

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6	NWIRP McGregor	N	HMX (3500 ppb)(soil) HMX (170 ppb)(gw)	12/2001 04/1999	Soil GW	Capped – removal Capped - removal	No	No
6	NWIRP McGregor	N	TNT (23000 ppb)(soil) TNT (8 ppb)(gw)	04/2001 04/2001	Soil GW	Capped – removal Capped - removal	No	No
6	Camp Bullis	N	Perchlorate – 345 ppb (gw)	01/2003	GW	No remedy	No	No
6	Camp Bullis	N	HMX – 2.23 ppb (gw)	10/2002	GW	No remedy	No	No
6	Camp Bullis	N	RDX – 10.3 ppb (GW)	11/2001	GW	No remedy	No	No
6	Camp Bullis	N	2,4,6-Trinitrotoluene – 0.140 ppb (GW)	11/2000	GW	No remedy	No	No
6	Camp Bullis	N	2,6-Dinitrotoluene – 0.0469 ppb (GW)	5/2000	GW	No remedy	No	No
6	Camp Bullis	N	2,4-Dinitrotoluene - 0.0469 ppb (GW)	5/2000	GW	No remedy	No	No
6	Camp Bullis	N	Tetrachloroethylene – 0.61 ppb (GW)	05/2001	GW	No remedy	No	No
6	Camp Bullis	N	Nitrobenzene – 3.26 ppb (GW)	08/2001	GW	No remedy	No	No
6	Camp Bullis	N	Tetryl - 0.0657 ppb (GW)	10/2002	GW	No remedy	No	No
6	Ft Sill	N	Eight Powder Burn areas – CoC – explosives in soil and GW;	N/A	N/A	N/A	Yes	No
8	Pueblo Chemical Depot	N	RDX 880 ppm (soil) RDX 77 ppb (gw)	Early 1988	Soil GW	Soil removal and treatment completed in 1997. Other sites have soil contamination where future action may be	No	Yes (Temporarily) RDX detected above risk based levels.

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						needed. Boundary Containment System Installed for GW.		Alternate water supplies provided or treatment systems installed.
8	Pueblo Chemical Depot	N	TNT - 100,000 ppm (soil) TNT – 1100 ppb (gw)	Early 1988	Soil GW	Same as above.	No	No
8	Pueblo Chemical Depot	N	HMX - 5.3 ppb (gw)	Early 1988	GW	Same as above.	N	No
8	Black Hills Army Depot (FUDS)	N	TNT - .18 ppm (sediment) TNT - 1900 ppm (surf. soil) TNT – 230 ppm (sub soil) TNT – 120 µg/L (gw)	1988 – Present	Sediment Surface soil Subsurface soil GW	No Remedy	No	No
8	Black Hills Army Depot (FUDS)	N	RDX – 870 ppm (surf. soil) RDX - 340 ppm (sub soil) RDX - 13000 µg/L (gw) RDX – 3.4 µg/L (sw)	1988 – Present	Surface soil Subsurface soil GW SW	No Remedy	No	No
8	Black Hills Army Depot (FUDS)	N	HMX - 140ppm (surf. soil) HMX - 130 ppm (sub soil) HMX - 130 µg/L (gw) HMX – 1.9 µg/L (sw)	1988 – Present	Surface soil Subsurface soil GW SW	No Remedy	No	No
8	Rocky Mountain Arsenal	Y	At different times during the cleanup project workers have discovered isolated grenades	Random Times	Sampling of the sampling of the media for white	No Remedy	No	No

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			that were thought to have had white phosphorous; there was no evidence of residual white phosphorous found, however.		phosphorous was not done.			
8	Air Force Retained Areas – Badlands Bombing Range	N		n/a	n/a	n/a	No	No
8	Badlands Bombing Range (USACE Area)	N	The information EPA originally provided in the table for Badlands Bombing Range is not accurate. All chemical analysis for explosives constituents have been not detect. The numbers originally listed in the table are the same numbers as listed for Black Hills (just in a different order.) It appears that Region 8 confused the two projects and submitted the Black Hills data twice.	n/a	n/a	n/a	n/a	n/a
9	Barber's Point	N	2,4,6 Trinitrophenol (TNP) ppb	1999	Pond Sediment	Risk Assessment is underway	No	No
9	Sierra Army Depot	N	n/a	n/a	Soil	No Remedy	Yes	NA
9	Edwards AFB	Y	HMX – 1.8 ppb (gw)	08/04/1997	GW	No Remedy	No	No
9	Edwards AFB	Y	RDX – 11 ppb (gw)	08/04/1997	GW	No Remedy	No	No
9	Edwards AFB	Y	TNT – 2.5 ppm (soil)	08/20/2002	Soil	No Remedy	No	No
9	Ft Ord	Y	Perchlorate – 106 ppb (soil)	06/2002	Soil	RI underway	No	NA

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9	Ft Ord	Y	RDX – 16,800 ppb (soil)	1/1994 - 1/2003	Soil	Excavation to 0.5 ppm and consolidation in CAMU for capping	No	NA
9	Ft Ord	Y	TNT – 12,800 ppb (soil)	1/1994 - 1/2003	Soil	RI underway	No	NA
9	Ft Ord	Y	HMX – 1800 ppb (soil)	1/1994 - 1/2003	Soil	RI underway	No	NA
9	Ft Ord	Y	1,3,5-Trinitrobenzene – 110ppb (soil)	7/2002	Soil	RI underway	No	NA
9	Ft Ord	Y	Nitrobenzene – 440 ppb (soil)	7/2002	Soil	RI underway	No	NA
9	Ft Ord	Y	4-Nitrotoluene – 740 ppb (soil)	7/2002	Soil	RI underway	No	NA
9	Ft Ord	Y	2,4-Dinitrotoluene – 330 ppb	7/2002	Soil	RI underway	No	NA
9	MCAS El Toro	Y	RDX – 14000 ppb max, 2677 ppb avg. 9 of 235 samples above detection limit	1-3/2002	Soil	RI underway	No	No
9	MCAS El Toro	Y	TNT – 7860 ppb max, 1500 ppb avg. 7 of 235 samples above detection limit	1-3/2002	Soil	RI underway	No	No
9	MCAS El Toro	Y	HMX – 1400 ppb max, 1 of 235 samples above detection limit	1-3/2002	Soil	RI underway	No	No
9	Concord Naval Station	Y	RDX – 0.9ppm (sludge) IR Site 29	04/1995	Septic Tank Sludge	No Remedy	No	No
9	Concord Naval Station	Y	4-Nitrotoluene–0.1 ppm (soil) IR Site 29	04/1995	Soil	No Remedy	No	No
9	Concord Naval Station	Y	Phosphorous – unknown level (elevated) IR Site 29	11/1988	Soil	No Remedy	No	No
9	Concord Naval	Y	2,6–Dinitrotoluene – 1ppb	04/1995	Septic Tank	No Remedy	No	No

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	Station		(septic tank) IR Site 29		Liquid			
9	Concord Naval Station	Y	Cyclotetramethylene Tetranitramine – 0.4ppm (Unable to confirm – no record located)	1995	Soil	No Remedy	No	No
9	Concord Naval Station	Y	1,3–Dinitrobenzene – 0.1ppm	1995	Soil	No Remedy	No	No
9	Mare Island	N	RDX – 290ppb	1993-2003	Ground Water	No Remedy	No	n/a
9	Mare Island	N	TNT – 7.7ppm	1993-2003	Ground Water	No Remedy	No	n/a
9	Mare Island	N	HMX	1993-2003	Ground Water	No Remedy	No	n/a
10	Bangor Site A	Yes	RDX – 1000 ppb (gw) RDX	02/1995 02/1995	GW Soil	Yes in progress Done	No	No
10	Bangor Site A	Yes	TNT – 18 ppb (gw) TNT	08/1995 08/1995	GW Soil	Yes in progress Done	No	No
10	Bangor Site A	Yes	DNT – 1.97 ppb (gw) DNT	04/1992 04/1992	GW Soil	Yes in progress Done	No	No
10	Bangor Site D	Yes			GW Soil	Done Done	No	Yes – Closed in 2000
10	Bangor Site F	Y	RDX – 1800 ppb (gw) RDX	02/1995 02/1995	GW Soil	Yes in progress Done	No	n/a
10	Bangor Site F	Y	TNT – 8600 ppb (gw) TNT	02/1995 02/1995	GW Soil	Yes in progress Done	No	n/a
10	Camp Bonneville	N	Perchlorate - 270 ppb (gw)	07/24/01 TO 12/17/03	GW	No – Under investigation	No	No
10	Camp Bonneville	N	RDX -120 ppb (gw)	07/24/01 TO	GW	No – Under investigation	No	No

The table below represents the historical high level of detected contaminants found at a facility, i.e., the highest concentration ever detected at at least one site on the facility. The data was taken for a number of different purposes spanning a number of years. Concentrations at any given response site for any given constituent may have ranged from non-detect up to the levels shown. While the chart displays the highest levels detected at a site on a facility, the levels displayed may not represent current levels in the environment or the current human health or environmental risks at the facility. Also, at some of the sites, it was determined that no response action was required based on a site-specific risk assessment.

EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
				12/17/03				
10	Camp Bonneville	N	HMX - 2.6 ppbppb (gw)	07/24/01 TO 12/17/03	GW	No – Under investigation	No	No
10	Fort Lewis	Y	RDX - 0.8 ppb max.	2000 to present	GW	Monitoring only due to low levels of constituent	Yes	No
10	Ft. Richardson	Y	White Phosphorus particles .25mm to 4mm	Late 1980's	Soil and Sediment	Yes, Pond Drying through Pumping and Ditching	Yes	No
10	INEEL: Fire Station II Zone and Range Fire Burn Area **	Y	TNT - 130 ppm soil max.	1999	Soil	Institutional controls; Soil excavation and segregation, Fragment detonation; Soil disposal	No	No
10	INEEL: Fire Station II Zone and Range Fire Burn Area **	Y	RDX - 3.7 ppm soil max.	1999	Soil	Institutional controls; Soil excavation and segregation, Fragment detonation; Soil disposal	No	No
10	INEEL: Experimental Field Station **	Y	TNT - 1,100 ppm soil max. 1,3 DNB - 14 ppm soil max.	1999	Soil	Institutional controls; Soil excavation and segregation, Fragment detonation; Soil disposal	No	No
10	INEEL: Land Mine Fuze Burn Area **	Y	TNT - 79,000 ppm soil max.	1999	Soil	Institutional controls; Soil excavation and segregation,	No	No

The table below represents the historical high level of detected contaminants found at a facility, i.e., the highest concentration ever detected at at least one site on the facility. The data was taken for a number of different purposes spanning a number of years. Concentrations at any given response site for any given constituent may have ranged from non-detect up to the levels shown. While the chart displays the highest levels detected at a site on a facility, the levels displayed may not represent current levels in the environment or the current human health or environmental risks at the facility. Also, at some of the sites, it was determined that no response action was required based on a site-specific risk assessment.

EPA Region	Facility Name	NPL	Constituent and Highest Concentration Level Detected *	Date(s) of Detection	Contaminated Media	Remedial Action Taken	Op. Range	Closed DW Wells
						Fragment detonation; Soil disposal		
10	INEEL: National Oceanic and Atmospheric Administration (NOAA) **	Y	TNT - 17,014 ppm (soil)	1999	Soil	Institutional controls; Soil excavation and segregation, Fragment detonation; Soil disposal	No	No
10	INEEL: National Oceanic and Atmospheric Administration (NOAA) **	Y	RDX - 53 ppm (soil)	1999	Soil	Institutional controls; Soil excavation and segregation, Fragment detonation; Soil disposal	No	No
10	INEEL: National Oceanic and Atmospheric Administration (NOAA) **	Y	1,3 DNB – 27 ppm (soil)	1999	Soil	Institutional controls; Soil excavation and segregation, Fragment detonation; Soil disposal	No	No
10	INEEL: Naval Ordance Disposal Area (NODA) **	Y	RDX - 328 ppm soil max.	1999	Soil	Institutional controls; Soil excavation and segregation, Fragment detonation; Soil disposal	No	No

* - Pertaining to Redstone Army Arsenal (including NASA Marshall Space Flight Center), a "Yes" response for this field does NOT mean that the munition constituent release is associated with current range operations. In most cases at Redstone, the munitions constituent is associated with previous demolition / demilitarization of munitions following WWII or with production operations that are located on current and former range areas.

The table below represents the historical high level of detected contaminants found at a facility, i.e., the highest concentration ever detected at at least one site on the facility. The data was taken for a number of different purposes spanning a number of years. Concentrations at any given response site for any given constituent may have ranged from non-detect up to the levels shown. While the chart displays the highest levels detected at a site on a facility, the levels displayed may not represent current levels in the environment or the current human health or environmental risks at the facility. Also, at some of the sites, it was determined that no response action was required based on a site-specific risk assessment.

** - Although the INEEL sites were contaminated from use by the U.S. Navy and U.S. Air Corps during the WWII period, INEEL is now managed by DOE.

*** - Although it is closed, there is one operational range: Missile Defense Agency's Fort Wingate Missile Launch Complex. There has been no groundwater sampling under this large (6,526 acre) area, which includes three former ranges besides the current operation.

**** - Various sites at Sandia and a few at KAFB have detected explosives in the soil. Most are below 1 ppm and rarely exceed 2-3 ppm. There has been nothing in groundwater.

***** - n/a = Data not available

Question #4

DoD Data Related to EPA NPL Site List with Possible Operational Ranges[1]

EPA Region	State	Site Name	NPL Status	Operational Range Inventory Acres
1	MA	FORT DEVENS	Final	4,588
1	MA	OTIS AIR NATIONAL GUARD BASE/CAMP EDWARDS	Final	13,285
2	NJ	FORT DIX (LANDFILL SITE)	Final	28,002
2	NJ	PICATINNY ARSENAL (USARMY)	Final	4,545
3	MD	ABERDEEN PROVING GROUND (EDGEWOOD AREA)	Final	64250 (note 2)
3	MD	ABERDEEN PROVING GROUND (MICHAELSVILLE LANDFILL)	Final	
3	VA	FORT EUSTIS (US ARMY)	Final	3,999
3	MD	FORT GEORGE G. MEADE	Final	129
3	PA	LETTERKENNY ARMY DEPOT (PDO AREA)	Final	9 (note 2)
3	PA	LETTERKENNY ARMY DEPOT (SE AREA)	Final	
3	VA	MARINE CORPS COMBAT DEVELOPMENT COMMAND	Final	60,080
4	AL	ANNISTON ARMY DEPOT (SOUTHEAST INDUSTRIAL AREA)	Final	88
4	NC	CAMP LEJEUNE MILITARY RES. (USNAVY)	Final	152,000
4	NC	CHERRY POINT MARINE CORPS AIR STATION	Final	29,139
4	GA	MARINE CORPS LOGISTICS BASE	Final	4
4	SC	PARRIS ISLAND MARINE CORPS RECRUIT DEPOT	Final	50
4	AL	USARMY/NASA REDSTONE ARSENAL	Final	27,655
5	MN	NEW BRIGHTON/ARDEN HILLS/TCAAP (USARMY)	Final	1,796
6	TX	LONE STAR ARMY AMMUNITION PLANT	Final	232
7	NE	CORNHUSKER ARMY AMMUNITION PLANT	Final	6
7	KS	FORT RILEY	Final	92,660
7	IA	IOWA ARMY AMMUNITION PLANT	Final	1,338
7	MO	LAKE CITY ARMY AMMUNITION PLANT (NORTHWEST LAGOON)	Final	696
7	KS	SUNFLOWER ARMY AMMUNITION PLANT	Proposed	493
7	MO	WELDON SPRING FORMER ARMY ORDNANCE WORKS	Final	1,659
8	UT	TOOELE ARMY DEPOT (NORTH AREA)	Final	1,457
9	CA	BARSTOW MARINE CORPS LOGISTICS BASE	Final	2,438
9	CA	CAMP PENDLETON MARINE CORPS BASE	Final	114,000
9	CA	EDWARDS AIR FORCE BASE	Final	58,080
9	HI	SCHOFIELD BARRACKS (USARMY)	Deleted	11,442
10	WA	FORT LEWIS (LANDFILL NO. 5)	Deleted	77,577
10	AK	FORT RICHARDSON (USARMY)	Final	54,541
10	AK	FORT WAINWRIGHT	Final	922,589
10	ID	MOUNTAIN HOME AIR FORCE BASE	Final	120,844
10	WA	NAVAL AIR STATION, WHIDBEY ISLAND- AULT FIELD (NOTE 4)	Deleted	47,982
10	OR	UMATILLA ARMY DEPOT (LAGOONS)	Final	9

1. In answering this question EPA is relying on the report prepared in response to Section 366 of the National Defense Authorization Act for Fiscal Year 2003 as the universe of operational ranges. The report was provided to Congress in March 2004. EPA does not have information on the dates when the ranges were last used. This chart cross-walks the CERCLA NPL inventory of DoD facilities with the Section 366 Report and lists those NPL facilities that have operational ranges. The acreage provided is for the entire operational range. Operational ranges may or may not be included in the NPL listing. EPA involvement on the Operational Ranges at these facilities is limited to areas undergoing CERCLA Response activities.

2. The Inventory Acres for Aberdeen Proving Ground (Edgewood Area and Michaelsville Landfill) and Letterkenny Army Depot (PDO and SE Areas) were combined because there is a single entry for Aberdeen Proving Ground and Letterkenny Army Depot in the Section 366 Report.

Question 7b

7b. Is the EPA seeking to take samples itself at any DOD facility or asking DOD to sample at any facility for perchlorate or other constituents of military munitions? If so, please identify the facility and the circumstances.

EPA Region	Facility Name	NPL	Constituent	Nature of Request
1	Fort Devens	F	Perchlorate	EPA requested sampling 2003; Army to sample water supply wells - Spring 2004
1	Fort Devens	F	Perchlorate	EPA requested sampling from former training areas - 2003; Mass Development to sample - Spring 2004
1	Otis Air National Guard Base (ANGB)/Camp Edwards/Massachusetts Military Reservation (MMR)	F	Perchlorate/Explosives	EPA continues to request sampling and the military has been complying with our requests.
5	Chanute Air Force Base (AFB)	P	Perchlorate	EPA has requested that the Air Force (AF) to sample for perchlorate at 1) several closed jet/rocket engine test facilities and 2) a former fire training area where perchlorate was recently detected in surface water. The Air Force is complying with EPA requests; field sampling should be complete in May 04, and results received NLT Jul 04.
5	Sangamo Electric Dump/Crab Orchard National Wildlife Refuge	Y	Perchlorate and other constituents of military munitions.	Under the terms of an Administrative Order by Consent signed between General Dynamics Ordnance and Tactical Systems Inc. (GDOTS), EPA, Department of Interior (DOI), and Illinois EPA. GDOTS, as the Respondent, is in the process of conducting a Remedial Investigation/Feasibility Study at the Crab Orchard Site. This investigation includes taking samples at the site for perchlorate and other constituents of military munitions.
10	Bangor Site D	Y	TNT, DNT, other ordnance & pesticides	Groundwater sampling performed, wells decommissioned in 2000
10	Bangor Site F	Y	RDX, TNT & DNT	EPA Region 10 recently requested that the Navy include perchlorate as a sampling parameter in its updated Quality Assurance Project Plans (QAPP). The Navy is yet to respond.

Question 7b

EPA Region	Facility Name	NPL	Constituent	Nature of Request
10	Camp Bonneville	N	Perchlorate, RDX,HMX,TNT	Washington State Ecology Dept. has sampled 14 off-base residential wells as of March 2004. Preliminary results indicate no detections of perchlorate. Other results still at lab. Quarterly monitoring of on-site wells is ongoing.
10	Fort Lewis	Y	RDX	Fort Lewis is conducting monitoring at the perimeter of active ranges on a voluntary basis.

8b. Is the EPA aware of any perchlorate contamination or contamination from other constituents of military munitions in public or private drinking water wells where a DOD facility is a possible or likely source of the contamination? If so, please identify each such circumstance.

EPA Region	Facility Name	NPL	Constituent	Nature of Contamination
1	Camp Edwards/Massachusetts Military Reservation (MMR)	F	Perchlorate	THREE municipal supply wells in the Monument Beach well field in Bourne have had detections of perchlorate below 1 ppb. These wells have been taken off-line voluntarily by the water district. Two private residential wells just off of the northwest corner of MMR have had perchlorate detected in them. One well has had sporadic detections below 1 ppb. The other well has had consistent detections of perchlorate at approximately 2 ppb. The Commonwealth of Massachusetts has provided bottled water to this residence since this concentration is above the advice level of 1 ppb that the Commonwealth provided to the Town of Bourne in relation to perchlorate detected in the Monument Beach supply wells.
1	Camp Edwards/MMR	F	RDX	A community supply well (supplies a condominium complex of approximately 90 people) also just north of the Northwest Corner of MMR has been found to contain RDX contamination at a level of 0.28 ppb. This well has contained RDX above the method detection limit, but below the reporting limit for a number of years.
3	Aberdeen Proving Ground		Perchlorate	Aberdeen City water production wells have detected perchlorate up to 5 ppb. Finished drinking water from the public water system has recorded perchlorate levels up to 1 ppb. The City of Aberdeen, and the Army are monitoring the system to ensure levels do not rise above 1 ppb in the drinking water.
8	Badger Army Ammunition Plant		Dinitrotoluene (DNT)	Tests of drinking-water wells serving homes south of Badger Army Ammunition Plant showed trace levels of DNT. Levels are

EPA Region	Facility Name	NPL	Constituent	Nature of Contamination
				below the Wisconsin regulatory level of 50 parts per trillion. The Army has provided bottled water to the affected residents.